

IN THE CLAIMS:

1. (Currently Amended) Transceiver for use in an electronic device wherein said transceiver adapts itself to operate in two modes operating either as ~~an RF~~ radio frequency tag reader or as a Bluetooth transceiver by changing its reception and transmission capabilities ~~including adapting mixers~~ with control logic to control at least one mixer of said transceiver to operate ~~said at least one mixer~~ in both of the two modes, wherein a single antenna is useable for said transceiver operating as said ~~RF~~ radio frequency tag reader or as said bluetooth transceiver.
2. (Currently Amended) The transceiver of claim 1, wherein said Bluetooth transceiver is useable as a transceiver for a 2.4 ~~GHz ISM~~ gigahertz industrial, scientific and medical band ~~RF~~ radio frequency tag reader system.
3. (Previously Presented) The transceiver of claim 1, wherein said transceiver comprises an integrated circuit.
4. (Previously Presented) The transceiver of claim 1 for said use in said electronic device comprising a mobile terminal device.
5. (Currently Amended) Radio device having a radio receiver and a radio transmitter wherein operability of said device is by using a single antenna in two modes, wherein said device is configured to operate in a bluetooth mode and ~~an RF~~ radio frequency tag reader mode by ~~adapting mixers~~ with control logic to control at least one mixer of said receiver and of said transmitter to operate ~~said at least one mixer~~ in both of the two modes, said radio receiver and said radio transmitter comprising a single transceiver that adapts itself to operate as a bluetooth transceiver using said single antenna in said bluetooth mode and ~~an RF~~ radio frequency tag reader using said single antenna in said ~~RF~~ radio frequency tag reader mode by changing its reception and transmission capabilities.

6. (Previously Presented) The radio device of claim 5, wherein said operability of said radio device in either mode is by using said radio receiver and said radio transmitter.
7. (Previously Presented) The radio device of claim 5, wherein said radio device is incorporated in a device having additional device functionality.
8. (Previously Presented) The radio device of claim 7, wherein said device in which said radio device is incorporated comprises a mobile telephone.
9. (Previously Presented) The radio device of claim 5, further characterized by said radio device installed in a mobile telephone.
10. (Currently Amended) Radio device having a radio receiver, a radio transmitter, and a signal processor, wherein the radio receiver is responsive to an incoming analog radio signal for providing a down converted and modulated signal to said signal processor, wherein the radio transmitter is responsive to an output signal from said signal processor for transmission as an outgoing analog radio signal, said device further comprising control logic for controlling said radio device in two modes, a first mode for operating as a ~~bluetooth~~Bluetooth device and a second mode for operating as ~~an RF~~a radio frequency tag reader wherein said radio receiver and said radio transmitter comprise a single transceiver that adapts itself to operate with a single antenna as ~~an RF~~said radio frequency tag reader or as a Bluetooth transceiver by ~~adapting mixers~~with control logic to control at least one mixer of both said receiver and said transmitter to operate said at least one mixer in both the first mode and the second mode.
11. (Currently Amended) Control logic for controlling a radio device in two modes, a first mode for operating as a Bluetooth device and a second mode for operating as ~~an RF~~a radio frequency tag reader wherein said radio device comprises a single transceiver that adapts itself to operate with a single antenna as

said ~~RF~~radio frequency tag reader or as a Bluetooth transceiver by changing its reception and transmission capabilities.

12. (Previously Presented) Mobile telephone, comprising the transceiver of claim 1 in combination with means for communicating with a radio access network over a radio interface.

13. (Previously Presented) The mobile telephone of claim 12, wherein said means for communicating includes a signal processor and a mobile telephone transceiver.

14. (Currently Amended) Method, comprising,  
switching a mode of a single transceiver able to operate as an ~~RF~~radio frequency tag reader in one mode and as a Bluetooth transceiver in another mode by adapting ~~mixers~~at least one mixer of said single transceiver to operate in both modes, and  
using a single antenna for said single transceiver operating as said ~~RF~~radio frequency tag reader or as said Bluetooth transceiver.

15. (Currently Amended) The method of claim 14, wherein said single transceiver is both for interrogating an ~~RF~~radio frequency tag and for participating in a ~~bluetooth~~Bluetooth piconet.

16. (Previously Presented) The method of claim 15, wherein said single transceiver and said single antenna are for use in a mobile telephone and wherein said method further comprises operating a mobile telephone transceiver of said mobile telephone over a radio interface to a radio access network.